

TECHNOCRACY

The Ecology of Man

Wilton Ivie - 1948



Ecology is the study of organisms in relation to their environment. Since no one organism lives strictly to itself, the study of ecology involves the inter-relationships of many organisms as well as the relationships of these organisms with the non-organic environment.

'THE WEB OF LIFE'

This complex is often spoken of as the 'web of life.' The principal components of the environment are plants, animals, minerals and water, with other factors of varying importance which we shall omit from our present discussion.

When there is an essential stability in the environment; that is, when conditions and relationships do not change much from year to year, we speak of it as the 'balance of nature.' When there is a stabilized, dynamic balance between plants, animals, minerals and water, a particular and interesting condition prevails--the return of ingredients to the environment from year to year is essentially equal to that which is removed.

For example, the plants and animals which die are replaced by similar plants and animals. No more water is removed than what accumulates during the year. Fertility which is taken from the soil is restored. Under such conditions, and excepting a major geological change, the prevailing environment could be maintained for an indefinite period of time.

The balance of nature is often upset, however. A whole area may be affected by a geological change; such as, change of climate (temperature and humidity) or change of elevation or topography. A local upset of much smaller magnitude occurs when an area is burned over or is invaded by a sand dune or a volcanic deposit.

Following events which wipe out all, or most of life, a period of rehabilitation must occur. The first life that comes into an area is called the pioneer flora and fauna. The pioneer life is only temporary; it is soon replaced by other kinds of life once a suitable environment is prepared for them. These in turn are followed by still other forms. Thus, there is a succession of life--a series of changes in the organic components of the environment, in which transitional species successively come into prominence, only to fade out of the scene.

Eventually, a new balance is established which is again stable. The final association of plants and animals in an ecological succession is known as the climax association. It tends to be stable for long a period of time.

We might use a burned over forest area as an example for further illustration. In this case, the pioneer species of plants would probably be various types of herbs, the kind depending upon the geographical locality, the humidity and the elevation. These will not remain long as the dominant species, but will soon have that position usurped by other species--probably various kinds of shrubs. These will probably be replaced by trees, and these first trees by other kinds of trees.

Eventually, a climax flora will become established which is permanent. This flora, and the fauna which is associated with it, constitute a balanced association, not only between the component organisms, but also with the water supply and the minerals of that area. However, it may take many years for the transitional changes to result in the climax association. But this climax association may not be composed of the same types of plants and animals as the one that prevailed before the fire. The main thing of importance is that the association is in balance and it is able to maintain itself in the face of other organic competition for that area.

MAN NOW DOMINANT SPECIES

Among the ecological associations of the world, man is now the most dominant species of animal, except in a few areas where he has not penetrated in large numbers. Although man has been a component part of the world's balance of nature, it was not until quite recently in his history that he became a disturbing influence to that balance. Because of his greater innate intelligence and his inventiveness, as well as his social organization, man was able to tilt the dynamic balance more and more in his favor.

The invention of weapons and tools, the use of fire, and the development of language (as a means of communication and social memory) gave man a decided advantage in the struggle for survival over other animals of comparable or even larger size. The domestication of plants and animals and other technological developments accelerated this advantage through the centuries, until now man has become almost everywhere the most dominant species in the environment, if not in numbers at least in the effect which he has produced.

During 98 percent of man's 7000 years of civilized existence on the earth, this technological progress was so slow that the disturbance of the general ecological balance was only of a minor magnitude and only local in its effects. But the last two percent of that time--the last 140 years--tells a far different story. During this time, man has become a plague upon the earth. He has exterminated or exhausted many species which once roamed the earth, flew the sky, or swam the waters by the hundreds of millions. He has plowed up the sod and slashed away at the plant growth, until many areas which were once verdant with forests and grass are now desolate. The ecological environment in which man as a species could flourish is now shrinking because of his own careless behavior.

Man has also let his population increase to the point where it has become self-destructive. He must not only combat the other elements of the environment in order to survive, but he must battle within his own species to determine which individuals and which groups are to survive. No matter how one tries to rationalize the value of human life, one cannot escape the conclusion that there are just too many human beings on the earth.

As a result of this overburden of human population, the destruction of forests and other organic life which is consumed in the processes of human living is in many instances greater than the replacement of the particular species involved. Over-grazing of the rangelands in the western United States, for example, has so reduced the edible plants and so eroded the soil that the rangelands will not support more than a fraction of the live-stock that they did fifty or more years ago. The people of North America are cutting off the forests faster than they are being replenished. Even certain species of life in the ocean are becoming exhausted; not only the great whales, but certain species of shellfish and true fishes used for food.

MAN ENDANGERS HIS ENVIRONMENT

It is not only these organic factors of the environment that are being disturbed by man's recent activities on the earth, but the disturbance extends into the inorganic elements as well. Among these is ground water. Through millions of years, the rocks of the earth have been saturated with water below a certain level. This level is known as the water table. Man has disturbed this ground in a great many places. He has instituted drainage to remove surplus water from the surface, which has resulted in a lowering of the water table. He has destroyed the plant cover in many places and this permits a more rapid runoff, hence less water seeps into the ground. He has drilled wells and pumped the water out of the ground at a faster rate than it is replaced by natural means. He has diverted many lakes, streams and underground flows into the water mains of his large cities and then increased the population of the cities beyond the capacities of the water to supply their needs. Thus, in many areas where there was adequate water to supply a moderate population on a long-term basis, there is now a deficiency of water because of the uncontrolled increase of the population and the short-sighted exploitation of the water resources.

Another inorganic factor which man is misusing is the arable soil of the earth. It is estimated that about a fourth of the original arable soil area of the earth has been ruined, with a large part of the remainder damaged. On the basis of the factor of suitable land area alone, there are already 600 million more people on the earth than the soil can feed with a decent diet. But the population is increasing at the rate of more than 20 million a year and the acreage of productive soil is declining.

But, these are not the most critical factors affecting man's ecological balance. During his industrial growth, accompanied by the wasteful practices of business exploitation, man has become ravenous in the use of many minerals, ranging from iron ore to phosphate fertilizers. A number of the most critical of these minerals are nearing the stage of deficiency and some are rapidly approaching exhaustion. For example, the United States can no longer supply all of its own present consumption of copper, lead, zinc, tungsten, manganese, and petroleum. The United States is importing all of these to meet its domestic demands. Iron ore will soon be added to this list.

It is of little moment, in the long run, whether the human species on this Continent can maintain its present industrial pace for another ten years or another hundred. In reviewing the overall picture, we have neglected the details which support the general conclusions, but the details are there in abundance.

The important thing we are attempting here is a long range projection of man's ecological trend, especially as it pertains to the North American Continent. This much we can say for sure: Man will not be able to live on the North American Continent for the next generation as he has lived for the past generation. He has been too prodigal with his heritage. This has left him in the position of being repudiated by his environment.

The people of North America cannot continue, for even a few more years, their present magnitude of free enterprise operations. The environment will not supply the raw materials for this type of human onslaught for long. What the future of the people now living on the Continent will become is something fearful to contemplate. Yet, the North American citizen, instead of acknowledging the facts and recognizing the trend, is blindly and blatantly going ahead to increase the rate of the very factors which are contributing most toward the downfall of his vaunted civilization.

Man under his present mode of operation is not a climax species in the environment. He is a transitional species; for he is taking more from the environment than is being replaced. He is scheduled, therefore, in the course of events to lose his dominant position in the organic association; perhaps, to be

superseded as the number one species by something else. Whether that something is insect, rodent or weed does not much matter to us, once man succumbs.

The same factors that are pointing in a downward direction here on North America also apply to a greater or lesser degree to other parts of the world. In summary, they are these: Excessive population; soil erosion and depletion; destruction of forests and rangelands; excessive use of ground water; and exhaustion of vital mineral deposits.

To the student of trends, the future of the human race on the earth appears dismal. The most dismal aspect is the apathy toward or the flagrant denial of this trend by our so-called leaders. Businessmen and politicians are clamoring for a more rapid acceleration of the very trends which are in force. These two groups of social traitors are even contemplating a third world war-the greatest of them all-although everybody who understands anything about it, warns that such a catastrophe would deplete the very resources on which our industrial civilization and 'high standard' of living depend.

A few students of human affairs recognize what is happening and make a fairly accurate analysis of the situation. Their descriptions are clear; their analyses of the prevailing trends and appraisals of the danger leave no doubt as to the probability of dire consequences; and their warnings are almost hysterical. But when it comes to giving a synthesis for survival, most of their suggestions are puerile or fantastic-they lack the realism and boldness of concept which the analysis demands.

Typical of this type of literature is William Vogt's book 'Road to Survival.' The author draws a very clear picture of the perils facing human civilization and gives some of the basic causes. His descriptions are vivid, his analysis is good, but his synthesis is pathetic. In the early part of the book he tells the story of a Chinese man by the name of Wong. Wong and his family are starving; so, Wong goes forth to see if somewhere he can scrape up something to eat. Meeting with repeated failure, Wong finally gives up and sits down to die.

William Vogt is in some ways like Wong. He studies the situation, sees the facts, points out the trends, indicates in general what must be done; but, when he looks into the future, he sees little hope. After making a few puerile gestures toward a synthesis, he tosses the problem into the 'lap of the gods' and, intellectually speaking, sits down to die.

Vogt states that the program must have three parts: 'research, education, and action on the land.' He realizes that such a program must be organized, but does not know how it should be organized; he pleads incompetence, and expresses the hope that the United Nations will somehow acquire the vision and the unity needed to handle the job. He hates large technological operations (such as the Tennessee Valley Authority) and centralized industries; he wants to see some sort of a retrogressive trend toward small scale operation. He wants a program of birth control, one that is voluntary and which does not offend anybody or any institution. He proclaims his faith in democracy and recommends that we prepare to 'pull in our belts and accept a long period of austerity.' He hopes that if the dilemma is made known to all mankind, that somehow the people will see the light. Then he concludes;

'Unless we take these steps and begin to swing into them soon--unless in short, man readjusts his way of living, in its fullest sense, to the imperatives imposed by the limited resources of his environment--we may as well give up all hope of continuing civilized life. Like Gadarene swine, we shall rush down a war-torn slope to a barbarian existence in the blackened rubble.'

It is a sad commentary on the intelligence of the human species that it is not able to plan adequately for its own survival. Now that civilized man has become dominant in the organic world and has every advantage, it seems paradoxical that he should be headed pell-mell for oblivion.

TECHNOCRACY PROPOSES

The picture might, indeed, be as dark as William Vogt paints it, except for the thinking of one man. One man had the intelligence, the strategical genius, and the integrity to develop an idea for human survival that is in harmony with the facts and with the social needs of man. At times almost single-handed this man, Howard Scott, worked out a strategy of social operations that could be blueprinted into a social plan for the North American Continent. This idea, in time, became known as Technocracy.

But, Technocracy was not a popular program. If man was to survive, he would have to change many of his ways; he would have to abandon his concepts of individual anarchy; also, he would have to repudiate his politics, his business enterprises, and his uncontrolled wastage of natural resources. This did not set well with the people of North America; it did not cater to their soft, sentimental illusions. It made many enemies and it faced a stone wall of human inertia. It was not an idea that could win popular acceptance and support overnight. It was an idea that would have to penetrate slowly into the social intelligence of the people; but, it was an idea that had to grow and expand, for its time had come. It could not be denied for long.

Technocracy is today the only refutation of the prediction that man's civilization is doomed to failure. Technocracy maintains that it is possible for man to remain the dominant species on earth and at the same time enjoy a high standard of living for many centuries to come. It is possible for him to be the climax species in a new ecological balance; and it is possible for him to do this at a level of existence even far above that of the average North American of today. It has the only blueprint for a high-energy social mechanism that will not run down.

To do this, man must adopt a new strategy for his social operations and change his mode of living to conform to that strategy. He must return unto the ecological system as much as he takes from it. If man can do that, he can survive and flourish for thousands of years more on earth. If he does not do it, nature will take a ruthless course so far as the human species is concerned.

Technocracy's blueprint pertains specifically to North America as an operational unit. If the world is ever to install a scientific social control it must begin somewhere. The reasons why Technocracy selects North America as the beginning place are two: (1) North America happens to be where the idea of Technocracy originated; it is the home of the Technocrats; (2) North America is the easiest place on which to install such an operation.

This does not mean Technocrats ignore the rest of the world completely; rather, they have a serious concern for all areas of the earth. It is possible that eventually Technocracy will be introduced and installed on other continents; but it must be established in some one place first. It cannot be done everywhere at once. The most unfavorable parts of the world will have to be left in a state of virtual abandonment until more favorable areas are set up and operating.

We do not wish to imply by the foregoing that Technocracy Inc. has a world program. We are merely making a long-range speculation for the future of an idea. Technocracy's only blueprint program is for North America. When Technocracy is well established here, that will be the time for us more seriously to contemplate the endemic problems of other parts of the earth. Technocracy is a forceful and realistic

program with a superb strategy in support of human survival and advancement. It is not a weak philosophical dream, infected with the virus of a wishful-thinking good will. It is a program with concept stern enough to get the job done. It is as uncompromising as the grim question which must be answered soon--the question of survival.

Man's existence under the Price System is transitional; for the Price System does not provide the strategy for a long-term survival. It only offers man a chance to reap a quick profit and move on. The bonanza of Price System enterprise is even now running into borasca. A new concept and a new pattern of economic living is mandatory for the future if man's ecological position is to be to his liking. That concept and that pattern cannot be found within the framework of the Price System. That means that North Americans cannot go on doing for long what they are now doing. They can adhere stubbornly to the concepts of the status quo and blunder into catastrophe, or they can accept the planned progression outlined by Howard Scott and advance upward into the future. Technocracy is prepared to show the way.

In order to continue at a high level of civilization for an indefinite period of time, North Americans must do these things:

They must conserve the fresh water of the Continent and return it to the ground in such a way as to build up the water table and maintain it at as favorable a level as possible. This can be done most effectively through the Continental Hydrology Program designed by Technocracy. This program provides for the maximum use of the fresh water resources of the Continent on a balanced basis.

They must return the soil the fertility which is taken from it in the process of raising plants and animals. For the most part, this means that the fertility must never leave the soil area. We cannot depend indefinitely on scarce deposits of mineral fertilizer to make up for the wasteful depletion of the natural fertility. Such a program demands a Continental agrobiolgy, scientifically designed, wherein the plant and animal crop of the Continent will provide an abundance of food for the population and products for the industries of the Continent, without depleting the productivity of the soil. Only Technocracy can furnish the strategy necessary to the solution of that problem.

They must be careful in their use of the non-replaceable mineral resources of the Continent. More abundant materials should be used wherever possible in place of scarce materials and replaceable materials used in place of non replaceable materials. Then a program of maximum use and maximum recovery must be instituted. We cannot afford, for example, to discard 48 billion metal cans and 26 billion bottles on the national trash-piles each year, nor be lavish in the use of lead as a basic ingredient for paint. This program can be carried out, but not under the Price System. We must turn again to Technocracy for the answer.

They must establish a balanced utilization of energy. We cannot plan to operate for long on fossil fuel as our major energy source. Instead, we must adopt a system of energy use which will obtain a maximum amount of energy from renewable sources and a minimum amount from nonrenewable sources. Technocracy's program provides for such an energy balance. The Price System on the other hand refuses to face the problem, but seeks to deplete our limited fossil fuels at the maximum rate that will yield a 'fair return' in the way of profits.

They must institute a program of population control which will keep the population within the bounds of the long-range capacity of food, water, minerals and energy supplies. North America is not seriously overburdened with population at present, but it is gradually approaching that condition. The population

of North America should not much exceed 200 million. No political party can touch these problems concerning the population, but science can find a ready answer.

We have here presented the problem of North America in bare outline. And we have pointed out some of the goals that must be reached. But it is evident that the problem will not solve itself--at least not in any way that we will like. It can only be solved by an intentional and coordinated effort on the part of North American citizens to get it solved. They must be the ones who execute the tactics which support the strategy for survival.

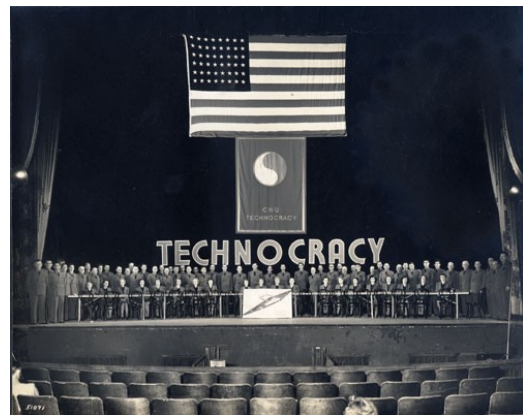
The Price System does not have any strategy for survival; it does not even have the mechanism by which an effective strategy can be implemented. In the long run, the operations of the Price System are defeatist. The Price System can only mine out the resources and move on. When the resources are gone--what then? Well, that day is rushing upon us. Our technological development has given it a momentum that it never had before. This generation must face the problem and find the answer.

Technocracy has always pointed out that Technocracy's method of social operation will not be adopted because it is desirable, but because it is necessary. The choice is literally between--Technocracy and chaos.

Science applied to the social order is the only effective technique of doing this. This is the method of Technocracy. Science has never yet let the human race down; business and politics have never done otherwise. Technocracy is non-business and non-political--it is strictly scientific. It alone can meet the requirements.

As painful as it may be to you, you must make a decision. The March of Events will not let you sit on a fence or equivocate for long. So, you might as well decide now. Which are you for--the 'blundercrats' of the Price System, or, the Technocrats? No matter how smart you are in the immediate manipulations of the moment, you have no security under 'blunderocracy.' The only future worthwhile is a future in Technocracy.

You do not have to be a genius to be a Technocrat. But you must have integrity and an attitude of cooperative endeavor. You must be prepared to function as an integral part of a self-disciplined body of people with a definite social objective. In Technocracy, there are many 'little' jobs to be done which are as important as the so-called big jobs. In Technocracy, there is no place for individual anarchy, ego inflation, or opinionation. But there is plenty of room for function and it is function that will get the job done. There is no material reward and no glory beyond the satisfaction of doing what must be done.



For all who can qualify on this basis, there is room and a job in Technocracy. Can you qualify?

